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Attorney Docket No.: 3298.1

### REMARKS

Applicants have amended Claim 103 to recite "more than 5000 transcripts". Support for the amendments to Claims 103 may be found, for example, on pages 34 (lines 13) of the Specification. Applicants submit that no new matter is entered by these amendments and respectfully request entry of the same.

**A. Attorney's Statement of the Substance of the Interview under 37 CFR §1.1333**

Applicants' attorney thanks the Examiner for a *telephonic* interview on November 16, 2004. Applicants' attorney, Wei Zhou, and Examiner Marianne P. Allen participated in the interview.

Claims 1, 39 and 77 were discussed during the interview for both the section 112 enablement rejection and section 103 obvious rejection. Applicants' attorney discussed the claim language and the disclosure of specific test statistics. The Examiner referred to the Office Action which rejected claims for "lack of guidance for selecting other test statistics for use in the claimed method nor the associated threshold values."

For the section 103 obvious rejection, cited references Lockhart et al., Hogg et al., and Holander et al. were discussed. Applicant's attorney argued that none of the references disclosed the use of nonparametric test for detecting the presence of a transcript. The Examiner referred to the Office Action for the reason to maintain the rejection. No agreement was reached.

**B. Claim rejection under 35 USC § 112 should be withdrawn**

Claim 103 was rejected under 35 USC § 112 for allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors had possession of the claimed

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invention. Specifically, the Examiner alleges that the term "at least" in connection with the last amendment lacks support in the specification. Applicants respectfully disagree. However, for the purpose of expediting the issuance of claims, Applicants have amended Claim 103 to recite "more than 5000." The support for this amendment can be found, for example, on pages 34 (lines 13) of the Specification. Applicants respectfully submit that this rejection of Claim 103 is obviated by the amendment.

Claims 1-2, 6-9, 11-12, 14-15, 26-27, 31-34, 36-40, 44-47, 49-53, 56-72, 74-78, 82-85, 87-91 and 93-103 are rejected under 35 U.S.C. § 112, first paragraph, for allegedly being lack of enablement. Applicants respectfully disagree with the Examiner.

The Examiner has rejected Claims 1, 26, 39, 64, 77 and 91-103 on the basis that the Specification does not provide guidance on selecting/ developing other test statistics for use in the claimed method nor the associated threshold values. Applicants respectfully disagree with the Examiner. The rejected Claims recite one-sided Wilcoxon's signed rank test with a test statistic for intensity difference between perfect match values and mismatch values. Specific test statistics were provided. In addition, the specification also provides several examples of selecting/ developing other test statistics including simple difference between perfect match intensities and mismatch intensities (e.g. page 24) or variations such as the Ryder's discrimination score. The claims are directed not to any test statistic. They are directed to methods that uses a test statistic for one sided Wilcoxon's signed rank test and the test statistic is for the intensity difference between perfect match values and mismatch values. Applicants respectfully submit that it is well within the skill of an ordinary artisan to develop additional suitable statistics (variations that indicate the intensity difference) without undue experimentation.

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Claims 1-2, 6-9, 11-12, 14-15, 26-27, 31-34, 36-40, 44-47, 49-53, 56-69, 61-65, 69-72, 74-78, 82-85, 87-91 and 93-103 are rejected for allegedly requiring a threshold value without reciting how it is determined or its value.

Applicants respectfully disagree with the Examiner. It was well known in the art and well taught in numerous statistics textbooks that p value threshold is chosen depending upon, for example, whether one wants to use a stringent or less stringent test. P value is the probability the observed difference (between perfect match and mismatch values) are due to random sampling. It is a routine practice, in many fields of sciences, including biological science, for a user to determine and report at what P value the user would accept that the observed difference is not due to random sample. Therefore, choosing an appropriate P value is a routine practice and does not constitute undue experimentation. This rejection of claims should be withdrawn.

Claims 39-47, 49-51, 52-59, 64-72, 74-76 are rejected under 35 USC 112, second paragraph, as allegedly being indefinite. Specifically, the Examiner alleges that Claims 39 and 64 remain confusing as to whether the software product is an integrated product. Applicants respectfully disagree. The claim clearly recites "a computer software product." The plain meaning of the claim language is that it is a single software product.

In summary, Applicants respectfully submit that for the above reasons, the claim rejections under 35 U.S.C. § 112 should be withdrawn.

***C. Claim Rejections under 35 U.S.C. § 103 should be withdrawn***

Claims 1, 39 and 77 are rejected under 35 U.S.C. 103 (a) as allegedly being unpatentable over Lockhart et al. (1996) in view of either Hogg et al. or Hollander et al.

The Examiner points to earlier Office Actions for the reason for the rejection.

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Applicants, in the previous response, submitted that the Examiner has failed to establish a prima facie case because there was no teaching, suggestion or motivation in the cited references that non-parametric tests are suitable for analyzing probe level data. The Examiner alleges that nonparametric statistics would have been well known in the nucleic acid arts and expression analysis with respect to differences in signal intensity. The Examiner cited three references to support her position.

Hogg et al. and Hollander et al. are two statistics textbooks that discusses nonparametric tests generally. They do not teach the use of nonparametric tests for analyzing nucleic acid hybridization data for the purpose of calling whether a gene is present as claimed. Therefore, the rejection of claims under 35 USC §103 should be withdrawn.

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### CONCLUSION

For these reasons, Applicants believe the application is now in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 731-5000.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account 01-0431.

If the Examiner has any questions pertaining to this application, the Examiner is requested to contact the undersigned agent.

Respectfully submitted,

By   
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